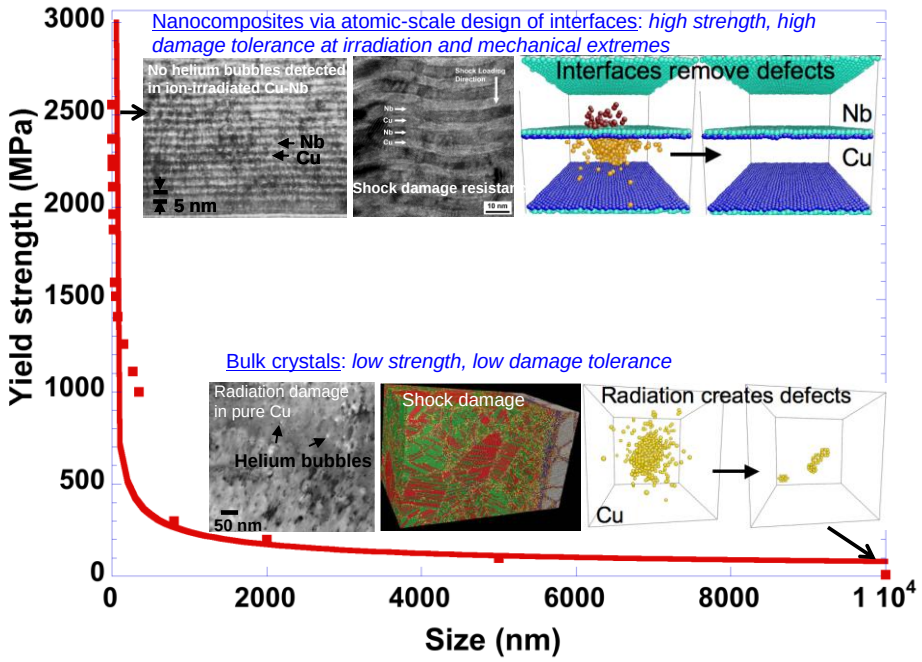
Materials at Irradiation and Mechanical Extremes

Michael Nastasi (Los Alamos Nat. Lab.)

***Summary statement*:**

The purpose of this EFRC is to understand, at the atomic scale, the behavior of materials subjected to extreme radiation doses and mechanical stress in order to synthesize new materials that can tolerate such conditions.



The EFRC will develop a fundamental understanding of how atomic structure and energetics of interfaces contribute to defect and damage evolution in materials, and use this information to design nanostructured materials with tailored response at irradiation and mechanical extremes with potential applications in next generation of nuclear power reactors, transportation, energy and defense.

an Office of Basic Energy Sciences
Energy Frontier Research Center